

CONSERVATIVE DENTISTRY AND ENDODONTICS

Paper-I: Conservative Dentistry

1. Introduction to Operative Dentistry
2. Examination, diagnosis and treatment plan
3. Occlusion as related to conservative dentistry, contact, contour, its significance. Separation of teeth, matrices, used in conservative dentistry.
4. Dental caries- epidemiology, recent concept of etiological factors, pathophysiology, histopathology, diagnosis, caries activity tests, and Caries Vaccine, prevention of dental caries and management – recent methods.
5. Biomaterials-Review of material Science and BioMechanics
6. Fundamental concepts of Enamel and Dentin adhesion
7. Fundamentals in Tooth preparation
8. Hand and rotary cutting instruments, development of rotary equipment, speed ranges, hazards.
9. Dental burs and other modalities of tooth reparation- recent developments (air brasions, lasers etc.)
10. Infection control procedures in conservative dentistry, isolation equipments etc.
11. Direct concepts in tooth preparation and Restorations with amalgam - restorative techniques, failures and management.
12. Direct concepts in tooth preparation and Restorations with composite, GIC - restorative techniques, failures and management
13. Biologic response of pulp to various restorative materials and operative procedures.
14. Direct and indirect composite restorations.
15. Indirect tooth colored restorations- ceramic, inlays and onlays, veneers, crowns, recent advances in fabrication
16. Gingival tissue management.
17. Impression procedures used for indirect restorations.
18. Cast metal restorations, indications, contraindications, tooth preparation for class II inlay, onlay, full crown restorations. Restorative techniques, direct and indirect methods of fabrication including materials used for fabrication like inlay wax, investment materials and casting.
19. Direct gold restorations.
20. Restoration of Badly broken tooth.
21. Recent advances in restorative materials.
22. Esthetics including smile design
23. Management of non-carious lesions.
24. Management of discolored tooth
25. Minimal intervention dentistry.
26. Hypersensitivity-theories, causes and management.
27. Lasers in Conservative Dentistry.

28. CAD-CAM in restorative dentistry.
29. Digital imaging and its applications in restorative dentistry.
30. Clinical Photography.
31. 3D Printing in Conservative Dentistry and Endodontics

Paper-II: Endodontics

1. Anatomy and Morphology of tooth and their root canal systems
2. Structure and function of Pulp Dentin Complex
3. Microbial and Non Microbial etiology of Endodontic Diseases
4. Rationale of endodontics.
5. Dental innervations and pain of pulpal origin
6. Pulp and periapical pathology.
7. Pathobiology of periapex.
8. Pulp and periapical pathology.
9. Pathobiology of periapex.
10. Diagnostic procedures – Orofacial dental pain emergencies: endodontic diagnosis and management, recent advances used for diagnosis.
11. Imaging devices and techniques: Analog Radiology, Digital Radiology, MRI and Ultrasound, CBCT in endodontic practice.
12. Imaging Interpretation
13. Case selection and treatment planning.
14. Endodontic microbiology.
15. Infection control procedures used in Endodontics (aseptic techniques such as rubber dam, sterilization of instruments etc.)
16. Preparation for treatment
17. Management of pain , fear and anxiety in Endodontic patients
18. Vital Pulp therapies
19. Access cavity preparation – objectives and principles
20. Endodontic instruments and instrumentation – recent developments, detailed description of hand, rotary, sonic, ultra sonic etc.
21. Working length determination of root canal system with recent developments.
22. cleaning and shaping of root canal system and recent developments in techniques of canal preparation.
23. Root canal irrigants and latest developments
24. Intra canal medicaments and recent advancements
25. Obturation of root canal system - materials, techniques and recent advances.

26. Endodontic therapy in teeth with anatomical variations
27. Endodontic emergencies and management
28. Traumatic injuries and management – endodontic treatment for young permanent teeth.
29. Endoperio interrelationship and management.
30. Multidisciplinary approach to endodontic situations.
31. Procedural errors in endodontics and their management.
32. Endodontic failures and retreatment.
33. Management of medically complex patients
34. Pharmacology in Endodontics including Drug interactions and laboratory tests
35. Resorptions and its management.
36. Management of teeth of Immature apex
37. Rhinosinusitis and Endodontic disease
38. Non Odontogenic toothache and chronic head and neck pain
39. Endodontic and Microsurgeries, recent developments in technique and devices and wound healing
40. Magnification in endodontics(Dental Loupes and Microscopes) .
41. Single visit endodontics, current concepts and controversies.
42. Outcomes and achieving success in long term endodontic therapy
43. Contemporary restoration of Endodontically treated teeth
44. Lasers in Endodontics.
45. Endodontic therapy in Paediatric
46. Endodontic therapy in Geriatric patients
47. Interrelationships of Endodontics and Orthodontics in treatment planning
48. Tooth discolourations and its Management
49. Regenerative Endodontics
50. Recent Advancements in endodontics- Minimally Invasive Endodontics, Guided Endodontics etc..

Scheme of Examination

Practical / Clinical Examination: 200 Marks

The duration of Clinical and Viva Voce examination will be 2 days for a batch of four students. If the number of candidates exceeds 4, the programme can be extended to 3rd day.

Day 1

Clinical Exercise I – Random case discussion – (2) - 10+10 Marks

(Diagnosis, Treatment, Planning & Discussion)

Cast core preparation

- (i) Tooth Preparation - 20 marks
- (ii) Direct Wax Pattern - 10 marks
- (iii) Casting - 10 marks
- (iv) Cementation - 05 marks
- (v) Retraction & Elastomeric Impression - 05 marks

Clinical Exercise II - 30 Marks

Inlay Exercise) (i) Tooth preparation for Class II Inlay (Gold or Esthetic)	20 marks
(ii) Fabrication of Indirect Pattern	-10 marks

Day 2

Clinical Exercise III - 100 Marks

(Molar Endodontics) (i) Local Anaesthesia and Rubber Dam application	- 20 marks
(ii) Access Cavity	- 20 marks
(iii) Working length determination	- 20 marks
(iv) Canal Preparation	- 20 marks
(v) Master cone selection	- 20 marks

C. Viva Voce: 100 Marks

i. Viva-Voce examination: 80 marks

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression, interpretation of data and communication skills. It includes all components of course contents. It includes presentation and discussion on dissertation also.

ii. Pedagogy Exercise: 20 marks

A topic be given to each candidate in the beginning of clinical examination. He/she is asked to make a presentation on the topic for 8-10 minutes

